WHAT IS CLAIMED IS:

1. A shoe comprising:

an upper, at least one active-response element, a sole coupled to the upper to define a chamber for receiving a wearer's foot, at least one sensor, and a controller operatively connected to said sensor and said active-response element,

wherein said controller determines whether the wearer is walking or swinging and when the wearer is swinging, said controller sends an output current to said active-response element and said active-response element changes said shoe from an initial state where the shoe exhibits a first set of characteristics to a transitory state where the shoe exhibits a second set of characteristics different from said first set of characteristics.

2. The shoe of claim 1, wherein said output current is sent to said sensor, and said sensor sends said output current to said active-response element.

3. The shoe of claim 1, wherein said active-response element comprises a sole adjuster, an upper adjuster, a tongue adjuster or a lace adjuster.

4. The shoe of claim 1, wherein said controller sends said output current if said sensor senses a pressure greater than a preset swing threshold within a preset time interval threshold.

5. The shoe of claim 1, wherein said sensor is a pressure sensor that underlies the ball of the wearer's foot.

6. The shoe of claim 5, wherein the pressure sensor underlies the wearer's foot's fifth metatarsal head.

7. The shoe of claim 4, wherein the swing threshold is between about 70 kPa to about 140 kPa.

8. The shoe of claim 7, wherein the swing threshold is about 100 kPa.

9. The shoe of claim 4, wherein the time interval threshold is about 0.5 second.

10. The shoe of claim 7, wherein the time interval threshold is about 0.5 second.

11. The shoe of claim 1, wherein the first set of characteristics is indicative of walking.

12. The shoe of claim 11, wherein the second set of characteristics is indicative of swinging.

13. The shoe of claim 12, wherein during walking said sensor generates energy that is harvested.

14. The shoe of claim 12, wherein during swinging the controller converts the harvested energy to said output current.

15. The shoe of claim 1, wherein the shoe is more stable when exhibiting the second set of characteristics than the first set of characteristics.

16. The shoe of claim 15, when exhibiting the second set of characteristics the wearer's foot is less movable relative to the shoe.

17. The shoe of claim 1, wherein the sole comprises at least two sensors, wherein the two sensors are located proximately under any two metatarsal heads.

18. The shoe of claim 17, wherein the two sensors are spaced apart.

19. The shoe of claim 17, wherein one sensor is located under the fourth metatarsal bone and another sensor is located under the fifth metatarsal bone.

20. The shoe of claim 17, wherein when the wearer is walking the at least two sensors sense pressure peaks at about the same time.

21. The shoe of claim 17, wherein when the wearer is swinging the at least two sensors sense pressure peaks sequentially.

22. The shoe of claim 1, wherein the at least one sensor is made of piezoelectric material.

23. The shoe of claim 1, wherein the at least one sensor is made of an insulating polymer.

24. The shoe of claim 23, wherein the at least one sensor is made of a silicone or an acrylic elastomer.

25. The shoe of claim 23, wherein the at least one sensor is made of polyurethane, fluorosilicone, fluoro-elastomer, polybutadiene or isoprene.

26. The shoe of claim 3, wherein the sole adjuster is positioned diagonally relative to the sole.

27. The shoe of claim 3, wherein the sole adjuster comprises two adjusters positioned diagonally relative to the sole and diagonally opposite from each other.

28. A shoe comprising an upper and a sole coupled to the upper to define a chamber for receiving a wearer's foot, wherein said shoe distinguishes whether the wearer is walking or swinging.

29. A method of providing an active-response shoe comprising:

providing a shoe with at least one sensor for sensing whether a wearer is walking or swinging;

providing said shoe with a controller operatively associated with said sensor;

providing said shoe with at least one active-response element;

determining a first state when said sensor senses a pressure greater than a preset swing pressure within a time interval threshold and a second state when the sensed pressure is less than the present swing pressure or not within a time interval threshold; and

in the first state directing an output current to said active-response element to change the shoe from an initial state where the shoe exhibits a first set of characteristics to a transitory state where the shoe exhibits a different second set of characteristics.

30. The method of claim 29, further including the step of positioning the sensor under the ball of the wearer's foot.

31. The method of claim 29, further including the step of positioning the sensor under the fifth metatarsal bone.

32. The method of claim 28, further including the step of harvesting the energy generated by the sensor during the second state.

33. The method of claim 31, further including the step of using the harvested energy to generate the output current.

34. The method of claim 28, wherein the time interval is less than about 0.5 second.

35. The method of claim 28, wherein the preset swing pressure is between about 70 kPa to about 140 kPa.

36. The method of claim 33, wherein the preset swing pressure is about 100 kPa.

37. A method of providing an active-response shoe comprising:

providing a shoe with at least two sensors for sensing whether a wearer is walking or swinging;

positioning the at least two sensors proximately under any two metatarsal bones;

providing said shoe with a controller operatively associated with said sensors;

providing said shoe with at least one active-response element;

determining a first state when said sensors sense pressures substantially at the same time and a second state when said sensors sense pressure sequentially;

in the second state directing an output current to said active-response element to change the shoe from an initial state where the shoe exhibits a first set of characteristics to a transitory state where the shoe exhibits a different second set of characteristics.

38. The method of claim 36, further including the step of positioning the at least two sensors under the fourth and fifth metatarsal bones.